CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/CEMENT/2016-17 Date: 18.04.2016

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
*NAME OF THE WORK	:	Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	16.04.2016
PERIOD OF TESTING	:	16.04.2016 to 18.04.2016

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	29.00%	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	160 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	485 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

Note:

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/SAND-Gradation/2016-17 : 18.04.2016

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
* Name of Work	: Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
Technical Reference	: IS : 2386 Part 1 - 1963 RA-2007
Sample ID	: Fine Aggregates
Sample Received on	: 16.04.2016
Date of Testing	: 18.04.2016

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	92.70	90-100	90-100	90-100	95-100
2.36	78.10	60-95	75-100	85-100	95-100
1.18	57.40	30-70	55-90	75-100	90-100
600 Micron	39.20	15-34	35-59	60-79	80-100
300 Micron	17.40	5-20	8-30	12-40	15-50
150 Micron	4.60	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

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Remarks : This sample is under Zone-II specific limits.

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Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/AGG/GR/2016-17 : 18.04.2016

TEST REPORT ON COARSE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
* Name of Work	: Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (40mm)
Sample Received on	: 16.04.2016
Date of Testing	: 18.04.2016

Total Wt. of Aggregates in gms= **7000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.39	95-100	85-100
20	34.71	30-70	0-20
10	14.37	10-35	0-5
4.75	2.33	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/CC Solid Block/2016-17 : 20.04.2016

TEST REPORT ON CEMENT CONCRETE SOLID BLOCKS

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
* Name of the Work	: Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
Sample Received on	: 16.04.2016
Date of Testing	: 20.04.2016
Size of Blocks	: 400mm x 200mm x 200mm
Cross Sectional Area	: 80000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	33.26	263.4	3.29	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	34.68	264.9	3.31	
3	Block 3	32.75	261.9	3.27	
4	Block 4	31.53	264.7	3.31	
5	Block 5	33.62	263.1	3.29	
6	Block 6	32.28	262.4	3.28	
7	Block 7	34.79	265.3	3.32	
8	Block 8	33.34	266.2	3.33	

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Ram Sanjeev AE

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Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/Precast Slab/2016-17 04.05.2016

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

* Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
* Name of work	:	Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab
Sample Received on	:	29.04.2016
Date of Testing	:	04.05.2016

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	76.00	0.376	2519.67	1.52	0.950	32.3	16.45	17.76	16.87	21.09
2	50.00	78.00	0.390	2546.48	1.56	0.960	32.5	16.57	17.90	17.18	21.48
3	50.00	77.00	0.394	2606.01	1.54	0.955	33.4	17.02	18.38	17.56	21.94

* Information is furnished by the Customer/Representative

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Job No.: CTCE/BBMP/W.No.04/NS/CSR-04/015h/CUBE/2016-17 23.05.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Suresh,** No. 14, 1st Main Road, 3rd Cross, Goraguntepalya, Bangalore.
* Name of the work	: Developmental work in Judicial Layout and surrounding area in Ward No. 04, Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNTSD/98/2016-17 Dated: 16.04.2016
* Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day
Sample Received on	: 23.05.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.04.2016	23.05.2016	8.153	478.2	21.25
2	25.04.2016	23.05.2016	8.242	515.8	22.92
3	25.04.2016	23.05.2016	8.357	492.1	21.87

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